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(54) ATTACHMENT FOR SPECTACLES

(75) HAROLD LAWRENCE BOWER

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(57) Claim 1. A pair of spectacles in combination with an attachment fitted to at least one arm thereof for retaining said spectacles in the correct position on a wearer the attachment comprising a resiliently deformable tubular member dimensioned to slide over and tightly engage and encompass at least the elbow section of said at least one arm or said spectacles and to wedge between the back of the ear and the head of the wearer and the tubular member being made of a material exhibiting antifriction properties such that the outer surface frictionally engages the skin area adjacent thereto.

COMMONWEALTH OF AUSTRALIA

Patents Act 1952-1973

528 562

APPLICATION FOR A PATENT

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PD 4720
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5+TC

48042/79

Insert full
name(s) of
applicant(s).

(a) HAROLD LAWRENCE BOWER

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address(es)
of applicant(s).

(b) 174 Victoria Street, Beaconsfield, N.S.W. 2015

COMPLETE AFTER PROVISIONAL SPECIFICATION No. 48042/79

Insert title
of invention.hereby apply for the grant of a Patent for an invention entitled (c): "ATTACHMENT FOR
SPECTACLES"which is described in the accompanying provisional
~~complete~~ specification.My/~~our~~ address for service is: C/o Arthur S. Cave & Co. Patent Attorneys, Alfred Street, Sydney,
2000, in the State of New South Wales, Commonwealth of Australia.Insert date
signed.

DATED this (d) 13th day of June, 1978.

nature(s)
of applicant(s)
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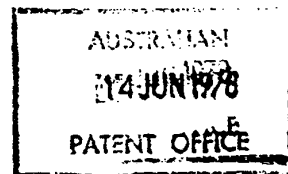
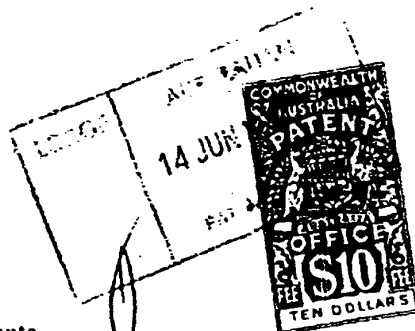
if any.

(e) HAROLD LAWRENCE BOWER

By His Patent Attorneys,

ARTHUR S. CAVE & CO.

G. F. CHODZIESNER



To:

The Commissioner of Patents,
COMMONWEALTH OF AUSTRALIAARTHUR S. CAVE & CO
PATENT AND TRADE MARK ATTORNEYS
SYDNEY

DECLARATION IN SUPPORT OF AN APPLICATION FOR A PATENT OR
PATENT OF ADDITIONIn support of the Application made by (a) Harold Lawrence Bowerfor a patent ~~patent of addition~~ for an invention entitled: - (b) 4804279

"ATTACHMENT FOR SPECTACLES"

I, (c) HAROLD LAWRENCE BOWERof (d) 174 Victoria Street, Beaconsfield, N.S.W., 2015

do solemnly and sincerely declare as follows:-

1. I am the applicant for the patent ~~patent of addition~~

(Or, in the case of an application by a body corporate.)

I am authorized by (e) _____

the applicant for the patent ~~patent of addition~~ to make this declaration on its behalf.

2. I am the actual inventor of the invention.

(Or, where a person other than the inventor is the applicant.)

I am _____

of (f) _____

is the actual inventor of the invention and the facts upon which I am the

entitled to make the application are as follows: (h) _____

Declared at Sydney this 5th day of June 1978.H L Bower

(Signature of Declarant)

Commissioner of Patents,
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528562

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COMPLETE SPECIFICATION
(ORIGINAL)

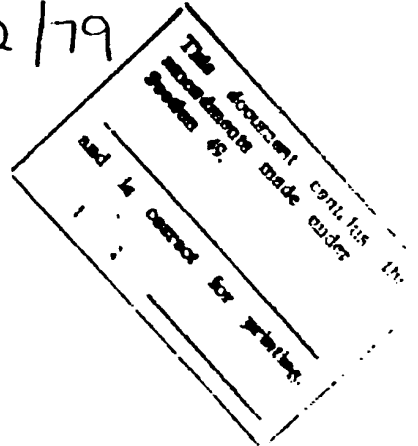
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FOR OFFICE USE

Application Number:
Lodged:

Complete Specification Lodged:
Accepted:
Published:

Priority:
Related Art:



TO BE COMPLETED BY APPLICANT

Name of Applicant: HAROLD LAWRENCE BOWER

Address of Applicant: 174 VICTORIA STREET, BEACONSFIELD. N.S.W.

Actual Inventor: HAROLD LAWRENCE BOWER

Address for Service: 1 ALFRED STREET, SYDNEY N.S.W. 2001

Complete Specification for the invention entitled "ATTACHMENT
FOR SPECTACLES"

The following statement is a full description of this invention,
including the best method of performing it known to me:-

This invention relates to an attachment which is to be fitted to one or both arms of a pair of spectacles so that the wearer of the spectacles is provided with a greater degree of personal comfort, as well as
5 increased security in maintaining the spectacles in the required position.

Hitherto, spectacles wearers have frequently suffered from the inconvenience that their spectacles, although professionally fitted, exhibit an increasing tendency
10 to slip downwards out of the required position as the spectacles age and increasing joint movement and frame distortion become significant. Consequently, many a spectacles wearer is often seen to place a finger on the spectacles in order to push the spectacles back into
15 their correct position so as to obtain maximum visual efficiency. Apart from the obvious annoyance of this phenomenon, the resulting continual movement of the elbows of the spectacles arms against the back of the ears can cause severe skin irritation and, in some cases, skin
20 abrasion.

It is therefore an object of this invention to provide a pair of spectacles having an attachment which will ameliorate the aforementioned problem.

According to the present invention, there is provided
5 a pair of spectacles in combination with an attachment fitted to at least one arm thereof for retaining said spectacles in the correct position on a wearer the attachment

comprising a resilient deformable tubular member dimensioned to slide over and tightly engage and encompass at least the elbow section of said at least one arm of said spectacles and to wedge between the back of the ear and the head of the wearer and the tubular member being made of a material exhibiting antifriction properties such that the outer surface frictionally engages the skin area adjacent thereto.

A preferred embodiment of the present invention will now be described with reference to the accompanying drawings in which :

Fig. 1 is a perspective view of a pair of spectacles having each arm fitted with an attachment according to the present invention;

Fig. 2 is a side view of the elbow end of one of the arms of the pair of spectacles shown in Fig. 1;

Fig. 3 is a cross-sectional view along the line III-III of the elbow section of the spectacles arm shown in Fig. 2.

Referring generally to the drawings, a pair of spectacles 1 is equipped with hinged arms 2, each hinged arm terminating with an elbow section 3. A resilient deformable tubular member 4 is slidably engaged on each elbow section 3 to tightly encompass the respective elbow section. Because the tubular member 4 is fabricated from a resilient, deformable material, the inner end of the tubular member is capable of sliding over the broad outer end of the respective elbow section 3 and reverting

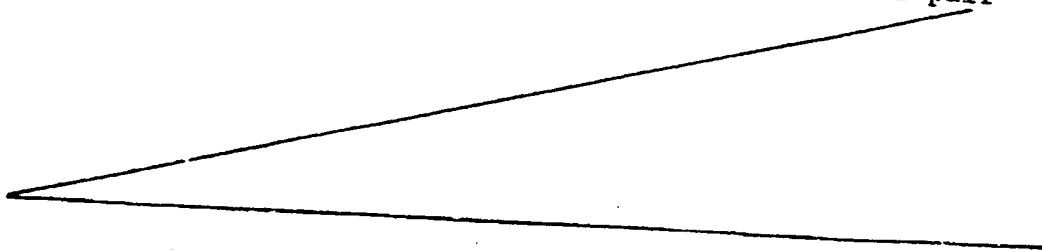
1 to a tight fit around the narrower inner end of the
elbow section.

5 The tubular member 4 may be fabricated from any one
of a variety of resilient, deformable materials having
antifriction properties. Preferably, however, the material
used is a plastics/^{or rubber} material having an outer surface which
exhibits the required antifriction properties, but which
is sufficiently soft to avoid the possibility of any skin
irritation occurring behind the ears of the spectacles wearer.

10 Experiments have indicated that the attachment of the
present invention serves its purpose most efficiently
when it is positioned on the elbow section of the spectacles
frame arm so that it wedges between the back of the ear
and the head of the wearer. However, the optimum
15 positioning of the attachment may be slightly different
in the cases of individual wearers and is best determined by
a qualified optical fitter. Obviously, the main factors which
must be taken into account in the case of any individual
fitting are the frame size of the spectacles and the ear
20 configuration of the particular wearer.

Generally, the length and diameter of the tubular
member 4 is dependent upon the size of any particular pair

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of spectacles to which it is to be fitted and, more particularly, upon the length and thickness of each arm of the spectacles frame. In this regard, it has been found that the length of the tubular member may be expected to be within the range from 1 inch to $1\frac{1}{2}$ inches, while the inside and outside diameters of the tubular member may be expected to be within the ranges from $\frac{1}{8}$ inch to $\frac{1}{4}$ inch and from $\frac{3}{16}$ inch to $\frac{3}{8}$ inch respectively. Further, the inside and outside diameters of the tubular member 4 may be varied within these ranges over the total length thereof in order to ensure an absolutely perfect fit between the inside wall of the tubular member and the arm of the spectacles frame and between the outside wall of the tubular member and the ear contour of an individual spectacles wearer.

Thus, the previously mentioned problems of positional instability and skin irritation are resolved when an attachment according to the present invention is fitted to the elbow section of at least one arm, but preferably both arms, of a spectacles frame. The attachment may further be modified within the scope of a person skilled in the art, using the information herein disclosed, without departing from the overall scope of the invention as a whole. For example, the tubular member need not necessarily be circular in cross-section (as shown in the drawings) but may exhibit an oval cross-

section or some other configuration which is determined
by a person skilled in the art to ideally suit the
requirements of any one individual wearer of spectacles.
The firmness of fit thus provided by the arrangement of
5 the present invention enables wearers of spectacles to
involve themselves in many rigorous activities, such as
sport etc., with a very much reduced need for concern
that the spectacles may become dislodged and subsequently
broken.

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The claims defining the invention are as follows :

1. A pair of spectacles in combination with an attachment fitted to at least one arm thereof for retaining said spectacles in the correct position on a wearer the attachment comprising a resiliently deformable tubular member dimensioned to slide over and tightly engage and encompass at least the elbow section of said at least one arm of said spectacles and to wedge between the back of the ear and the head of the wearer and the tubular member being made of a material exhibiting antifriction properties such that the outer surface frictionally engages the skin area adjacent thereto.
2. The combination as claimed in claim 1 wherein the internal cross-sectional dimension of said tubular member varies along substantially the length thereof in conformity with the contour of the elbow section of said at least one arm to which the attachment is fitted.
3. The combination as claimed in claim 1 or claim 2 wherein the external cross-sectional dimension of said tubular member varies along substantially the length thereof in conformity with the contour established between the head and the back of the ear of the wearer.
4. The combination as claimed in any one of the preceding claims wherein said tubular member is circular in cross-section.
5. The combination as claimed in claim 1, 2 or 3 wherein said tubular member is oval in cross-section.

6. The combination as claimed in any one of the preceding claims wherein said tubular member is fabricated from a plastic material.
7. The combination as claimed in any one of claims 1 to 5 wherein said tubular member is fabricated from rubber.
8. A pair of spectacles in combination with an attachment fitted to each arm thereof, substantially as hereinbefore described with reference to Figures 1, 2 and 3 of the accompanying drawings.

DATED this 20th day of December 1982

HAROLD LAWRENCE BOWER

By his Patent Attorneys,

ARTHUR S. CAVE & CO.

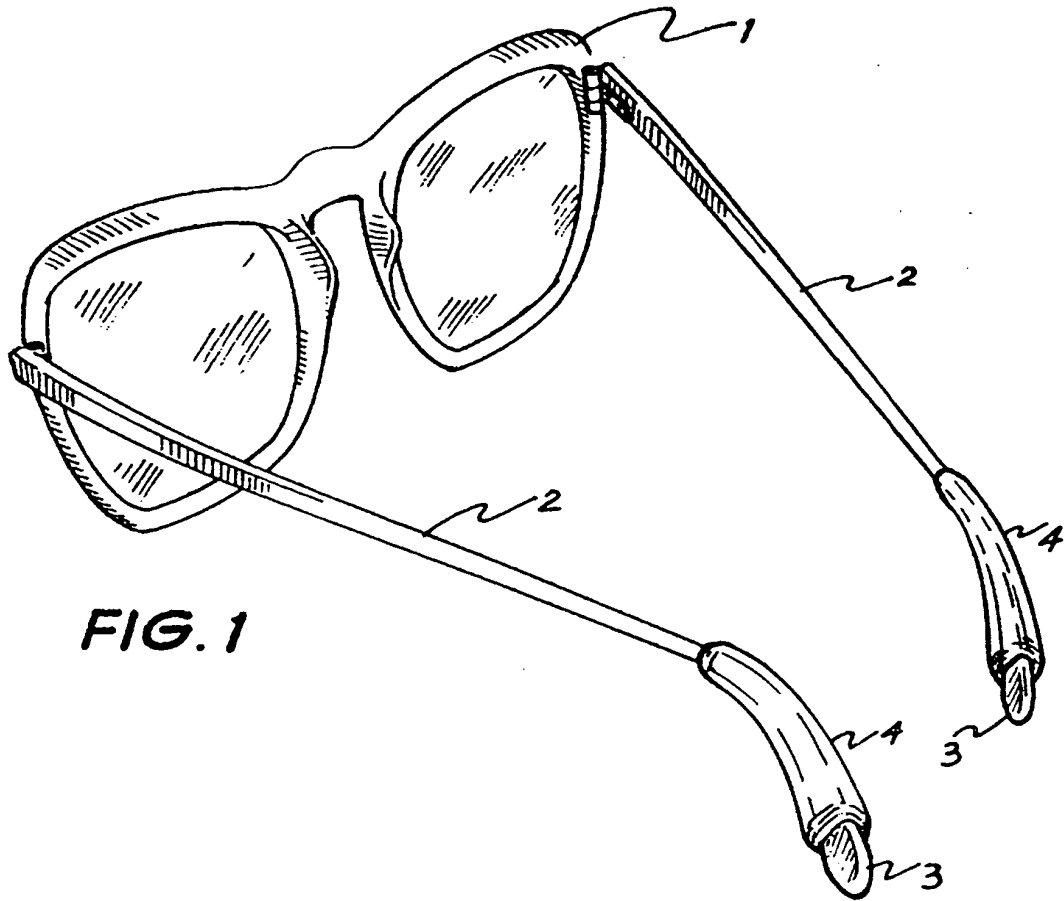


FIG. 1

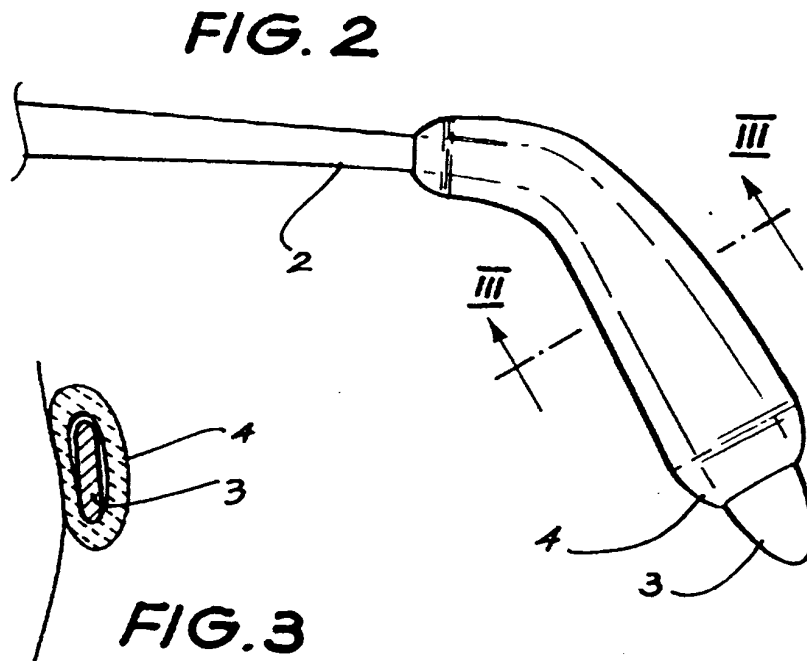


FIG. 2

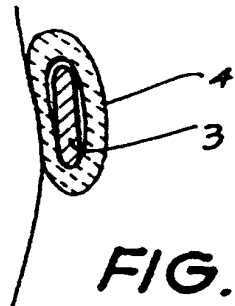


FIG. 3